Industry

OT-IN-xxx nodes

- CT-IN-001 — Industrial Energy Efficiency
- CT-IN-002 — Green Hydrogen (Industrial Use)
- CT-IN-003 — Cement & Construction Materials Decarbonisation
- CT-IN-004 — Circular Economy & Industrial Symbiosis
- CT-IN-005 — Clean Manufacturing SMEs

CT-IN-001 — Industrial Energy Efficiency

origo_id	CT-IN-001
origo_label	Industrial Energy Efficiency
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cbi_eligible	Y
iea_aligned	Y — IEA ETCS covers industrial energy efficiency
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col_ley2169	Y
latam_colombia	Y
cth_clp_coverage	Y
cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Technologies and processes for reducing energy consumption per unit of industrial output. Includes waste heat recovery, high-efficiency motors, industrial process optimization, cogeneration/CHP systems, energy management systems (ISO 50001), and electrification of industrial heating.

Colombia Context

PROURE (Programa de Uso Racional y Eficiente de Energia y Fuentes No Convencionales) is Colombia's national energy efficiency program managed by MinMinas and UPME. CONPES 4075 (Politica Nacional de Eficiencia Energetica) established efficiency targets for industrial sectors. Large industrial emitters (cement, steel, glass, chemicals) are subject to reporting under Colombia's GHG registry. Ley 2099 de 2021 promotes energy efficiency as part of the energy transition. UPME tracks industrial energy intensity metrics and sets sectoral benchmarks. MinAmbiente's sectoral mitigation plans under SISCLIMA include industrial efficiency.

EUDR Relevance

No direct EUDR relevance. Industrial energy efficiency does not intersect with commodity supply chain traceability or deforestation monitoring.

CTH Data Coverage

Good CTH coverage. Sustenttia diagnostics include energy efficiency metrics for industrial clients. CLP cohort has included energy efficiency startups. CTH Research tracks industrial decarbonisation policy and investment flows in LATAM. REIN Hub maps energy efficiency service providers.

Green Finance Alignment

Strong green finance alignment across all frameworks. TVC explicitly covers industrial energy efficiency. CBI certifies energy efficiency investments under its buildings and industry criteria. EU Taxonomy includes industrial efficiency activities. IEA ETCS prioritizes industrial energy efficiency as a key decarbonisation pathway. CPI GLCF tracks energy efficiency as a major climate finance category globally.


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CT-IN-002 — Green Hydrogen (Industrial Use)

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origo_label	Green Hydrogen (Industrial Use)
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eu_taxonomy_aligned	Y
cbi_eligible	Y
iea_aligned	Y — IEA ETCS covers hydrogen for industry
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col_gf_activity	Hidrogeno verde para uso industrial
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col_sisclima_relevant	Y
col_ley2169	Y
latam_colombia	Y
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cth_data_coverage	partial
schema_version	1.1
last_updated	2026-05-27

Description

Production and industrial application of green hydrogen (electrolysis powered by renewable electricity) and low-carbon hydrogen for hard-to-abate industrial processes. Applications include ammonia production, refinery feedstock, steel reduction, high-temperature industrial heat, and chemical synthesis.

Colombia Context

Colombia published its Hoja de Ruta del Hidrogeno (Green Hydrogen Roadmap) in 2021, targeting 1-3 GW of electrolyzer capacity by 2030. MinMinas leads hydrogen strategy with Ecopetrol as the primary industrial partner. Ecopetrol's Barrancabermeja refinery is piloting green hydrogen for refinery operations. Ammonia production (for fertilizers) is a priority application given Colombia's agricultural sector. La Guajira's wind resources offer low-cost renewable electricity for electrolyzer deployment. Ley 2099 de 2021 includes hydrogen promotion provisions.

EUDR Relevance

No direct EUDR relevance. Green hydrogen for industrial use does not intersect with commodity supply chains or deforestation monitoring.

CTH Data Coverage

Limited CTH coverage. CLP cohort has not focused on hydrogen. Partial data coverage through CTH Research tracking of hydrogen policy and investment developments in LATAM. An emerging priority sector as Colombia's hydrogen roadmap advances.

Green Finance Alignment

Strong green finance alignment. TVC covers green hydrogen under energy transition. CBI certifies green hydrogen projects meeting additionality criteria. EU Taxonomy includes green hydrogen production as a climate mitigation activity with specific lifecycle emission thresholds. IEA ETCS prioritizes hydrogen for hard-to-abate industrial sectors. CPI GLCF tracks growing hydrogen investment flows.


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CT-IN-003 — Cement & Construction Materials Decarbonisation

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origo_label	Cement & Construction Materials Decarbonisation
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eu_taxonomy_aligned	Y
cbi_eligible	Y
iea_aligned	Y — IEA ETCS covers cement and construction materials
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col_gf_activity	Descarbonizacion de cemento y materiales de construccion
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col_sisclima_relevant	Y
col_ley2169	Y
latam_colombia	Y
cth_clp_coverage	N
cth_data_coverage	partial
schema_version	1.1
last_updated	2026-05-27

Description

Technologies for reducing carbon emissions from cement production and construction materials manufacturing. Includes clinker substitution (fly ash, slag, calcined clay), alternative fuels for kilns, carbon capture and utilization (CCU), novel low-carbon cements, and circular economy approaches to construction waste.

Colombia Context

Colombia is a major cement producer in Latin America, led by Grupo ARGOS (Cementos Argos) and Cemex Colombia. ARGOS has committed to 30% emissions reduction by 2030 and is piloting clinker substitution and

alternative fuels at its Colombian plants. The cement sector is one of Colombia's largest industrial emitters, subject to reporting under MinAmbiente's GHG registry. The NDC industrial sector target includes cement decarbonisation. CONPES 4075 efficiency targets apply to cement kilns. Colombia's construction boom (infrastructure 5G program) creates both demand pressure and opportunity for low-carbon materials adoption.

EUDR Relevance

No direct EUDR relevance. Cement and construction materials do not intersect with EUDR-regulated commodity supply chains.

CTH Data Coverage

Limited CTH coverage. CLP cohort has not focused on construction materials. Partial data coverage through CTH Research tracking of industrial emissions and ARGOS sustainability reporting. Cement decarbonisation represents an underserved opportunity in the CTH portfolio.

Green Finance Alignment

Strong green finance alignment for verified low-carbon cement. TVC covers industrial decarbonisation activities. CBI certifies cement projects achieving verified emissions reductions. EU Taxonomy includes cement manufacturing with specific emission intensity thresholds. IEA ETCS tracks cement as a priority hard-to-abate sector. ARGOS has issued green bonds for decarbonisation investments.


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CT-IN-004 — Circular Economy & Industrial Symbiosis

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cbi_eligible	partial
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latam_colombia	Y
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cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Systems and business models that keep materials in productive use through reuse, remanufacturing, recycling, and industrial symbiosis (where one industry's waste becomes another's input). Includes waste-to-resource platforms, extended producer responsibility schemes, and circular design methodologies.

Colombia Context

Colombia's Estrategia Nacional de Economia Circular (National Circular Economy Strategy, 2019) is one of the most comprehensive in Latin America. CONPES 3874 (2016) established the national solid waste management policy that underpins circular economy targets. MinAmbiente leads circular economy implementation with sectoral action plans for packaging, construction, biomass, and manufacturing. Bogota's UAESP is piloting industrial symbiosis zones. Colombia hosts the LATAM Circular Economy Coalition. MinCIT promotes circular economy practices among MIPYMES (micro, small, and medium enterprises) through technical assistance programs.

EUDR Relevance

Limited EUDR connection. Circular economy in agricultural commodity processing (e.g., coffee pulp valorization, palm kernel shell biomass) intersects with EUDR commodity value chains at the post-harvest stage.

CTH Data Coverage

Good CTH coverage. CLP cohort has included circular economy startups. Sustenttia diagnostics include waste management and material efficiency metrics. CTH Research tracks circular economy policy and innovation in LATAM. REIN Hub maps circular economy solution providers.

Green Finance Alignment

Good green finance alignment. TVC covers circular economy under industry sector. CBI certification is possible for circular economy projects with measurable emissions reduction. EU Taxonomy's circular economy objective (one of six environmental objectives) provides substantial coverage. CPI tracks growing circular economy finance flows. CONPES 3874 enables green bond eligibility for waste management investments.


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CT-IN-005 — Clean Manufacturing SMEs

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latam_colombia	Y
cth_clp_coverage	Y
cth_data_coverage	Y
schema_version	1.1
last_updated	2026-05-27

Description

Support systems, technologies, and financing mechanisms enabling small and medium manufacturing enterprises to adopt cleaner production practices. Includes access to clean technology, resource efficiency audits, green supply chain integration, environmental management systems, and cleantech startup ecosystems.

Colombia Context

MIPYMES (micro, small, and medium enterprises) represent 99%+ of Colombian businesses and a significant share of manufacturing output. MinCIT runs programs supporting SME competitiveness and clean production adoption. The CLP (Cleantech Launchpad) program specifically targets cleantech startups in this space. MinAmbiente's Programa de Produccion Mas Limpia has operated since the 1990s, providing technical assistance to manufacturing SMEs. The TVC industry criteria address SME access to green finance. Bancoldex (state development bank) offers green credit lines for SME clean technology adoption.

EUDR Relevance

Indirect EUDR connection through SMEs in EUDR-regulated commodity processing (coffee roasters, cacao processors, palm oil mills). Small processing enterprises face particular challenges meeting EUDR due-diligence requirements.

CTH Data Coverage

Strong CTH coverage. CLP cohort is the primary mechanism for supporting cleantech manufacturing SMEs. Sustenttia diagnostics provide sustainability assessments for SMEs. REIN Hub maps cleantech SME ecosystem. CTH Research tracks SME cleantech investment and support programs across LATAM.

Green Finance Alignment

Partial green finance alignment. TVC industry criteria include SME access pathways. CBI does not directly certify SME programs but supports green bond frameworks with SME allocation tranches. EU Taxonomy activities apply regardless of company size but SMEs face proportionality challenges. CPI tracks SME access to climate finance as a cross-cutting challenge. Bancoldex green credit lines are the primary Colombian financing mechanism for clean manufacturing SMEs.


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